

Appln. No. 09/865,393
Response Dated June 11, 2004
Office Action dated March 04, 2004
Docket No. 6169-203

IBM Docket No.: BOC9-2000-0067

Amendments to Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

1. (Currently Amended) A method for post-analyzing and sequentially visualizing a plurality of predefined metrics in a stored dynamic data space, comprising:
storing in a datastore, values corresponding to the predefined metrics received from an agent, each of said values representing a characteristic of one of a plurality of entities in the data space, wherein data for temporally coordinating interactions among the entities is also stored in the datastore;
retrieving said stored values from said datastore; and
displaying said retrieved values for selected ones of said predefined metrics for sequential viewing, on a graphical display, previously occurring network events involving the entities, wherein the displaying step utilizes previously stored temporal data to display interactions among at least a portion of the entities in a time sequenced manner.
2. (Currently Amended) The method according to claim 1[2], wherein said retrieving step, comprises:
accessing values in said datastore;
determining a starting positiontime and an ending positiontime of said stored values to be retrieved; and
acquiring said sequentially stored values from said starting positiontime to said ending positiontime.
3. (Currently Amended) The method according to claim 1[3], wherein said ~~step of displaying said retrieved values~~, comprises an interface utilized by the displaying step to display the previously occurring network events is configured to display network events in real-time.
~~selecting at least one of the metrics for display for selected ones of said entities; and~~

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~~providing a graphical display of said selected metrics, said display sequentially changing according to changes in said acquired values caused by changes in the stored dynamic data space.~~

4. (Currently Amended) The method according to claim 1[4], further comprising controlling said sequentially changing graphical display by selecting a playback function from the group consisting of playing, forwarding, fast forwarding, rewinding, fast rewinding, pausing, stepping and stopping.
5. (Currently Amended) A method for post-analyzing and visualizing predefined metrics for at least one of a plurality of distributed components in a CDN heterogeneous system, the method comprising:
- at least one software agent retrieving and processing predefined metrics, each metric representing a characteristic of a component in a heterogeneous system, wherein each of said agents is configured to processes the received values in an entity-independent manner;
 - storing in a datastore, values for the predefined processed metrics received from an agent, each of said values representing a characteristic of each component in the CDN;
 - identifying a previously occurring network event involving components associated with the at least one agent;
 - retrieving said stored values from said datastore for the network event; and
 - displaying said retrieved values for selected ones of said predefined metrics for sequential playback on a graphical display, wherein said sequential playback indicates previously occurring interactions among components in the heterogeneous system.
6. (Currently Amended) The method according to claim 5[6], wherein said storing step, comprises storing said values sequentially in time as said values are collected along with data for temporally coordinating interactions among the components.
7. (Currently Amended) The method according to claim 5[7], wherein said retrieving step, comprises:
- accessing stored values in said datastore;

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determining a starting ~~time position~~ and an ending ~~time position~~ ~~for which~~ said stored values ~~are~~ to be retrieved; and
acquiring said sequentially stored values from said starting ~~position~~ time to said ending ~~position~~ time.

8. (Currently Amended) The method according to claim 5[8], wherein said step of displaying said retrieved values, comprises:

selecting at least one of the metrics for display for selected ones of said components; and
providing a graphical display of said selected metrics, said display sequentially changing according to changes in said acquired values caused by changes in the stored dynamic data space.

9. (Currently Amended) The method according to claim 5[9], further comprising controlling said sequentially changing graphical display by selecting a playback function from the group consisting of playing, forwarding, fast forwarding, rewinding, fast rewinding, pausing, stepping and stopping.

10. (Currently Amended) A system for post-analyzing and visualizing predefined data metrics for at least one of a plurality of communication components in a heterogeneous system ~~CDN~~, the system comprising:

at least one agent configured to gather and process metrics from a plurality of communication components in a component-independent fashion;

a datastore for storing values ~~received from an agents for said predefined metrics for each of the plurality of communication components;~~ and

~~a computing device for retrieving said stored values from said datastore;~~

a graphical display interface for sequentially playing back and viewing component interactions and related data provided by the agents, wherein the agents are configured to selectively utilize the datastore and the communication components as information sources, wherein when the datastore is utilized as an information source, previously occurring network events are presented in the graphical interface.

~~said retrieved values for selected ones of said predefined metrics on a graphical display.~~

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11. (Currently Amended) The system according to claim 25[11], wherein said datastore, comprises a storage for storing said values ~~within said datastore~~ as said values are collected and presented in real-time upon the graphical interface.
12. (Currently Amended) The system according to claim 10[12], wherein said computing device, comprises:
a processor for accessing stored values in said datastore;
a processing means for determining a starting timeposition and an ending timeposition of said stored values to be retrieved; and
a second processing means for acquiring said sequentially stored values from said starting timeposition to said ending timeposition.
13. (Currently Amended) The system according to claim 10[13], ~~wherein said display,~~ further comprises:
means for selecting at least one of the metrics for display for selected ones of said communication component; and
a graphical display for displaying said selected metrics, said display sequentially changing according to changes in said acquired values caused by changes in the stored dynamic data space.
14. (Currently Amended) The system according to claim 10[14], further comprising a user interface for controlling said sequentially changing graphical display by selecting a playback function from the group consisting of playing, forwarding, fast forwarding, rewinding, fast rewinding, pausing, stepping and stopping function.
15. (Currently Amended) A machine readable storage having stored thereon, a computer program having a plurality of code sections for post-analyzing and sequentially visualizing a plurality of predefined metrics in a stored dynamic data space, said code sections executable by a machine for causing the machine to perform the steps of:

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storing in a datastore, values corresponding to the predefined metrics received from an agent, each of said values representing a characteristic of one of a plurality of entities in the data space, wherein data for temporally coordinating interactions among the entities is also stored in the datastore;

retrieving said stored values from said datastore; and

displaying said retrieved values for selected ones of said predefined metrics for sequential viewing, on a graphical display, previously occurring network events involving the entities, wherein the displaying step utilizes previously stored temporal data to display interactions among at least a portion of the entities in a time sequenced manner.

16. (Currently Amended) The machine readable storage according to claim 15[16], wherein said storing step, comprises storing said values for the predefined metrics sequentially in time as said values are collected.

17. (Currently Amended) The machine readable storage according to claim 15[17], wherein said retrieving step, comprises:
accessing values in said datastore;
determining a starting positiontime and an ending positiontime of said stored values to be retrieved; and
acquiring said sequentially stored values from said starting positiontime to said ending positiontime.

18. (Currently Amended) The machine readable storage according to claim 15[18], wherein ~~said step of displaying said retrieved values, comprises an interface utilized by the displaying step to display the previously occurring network events is configured to display network events in real-time.~~
~~selecting at least one of the metrics for display for selected ones of said entities; and~~
~~providing a graphical display of said selected metrics, said display sequentially changing according to changes in said acquired values caused by changes in the stored dynamic data space.~~

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19. (Currently Amended) The machine readable storage according to claim 15[19], further comprising controlling said sequentially changing graphical display by selecting a playback function from the group consisting of playing, forwarding, fast forwarding, rewinding, fast rewinding, pausing, stepping and stopping.

20. (Currently Amended) A machine readable storage having stored thereon, a computer program having a plurality of code sections for post-analyzing and visualizing predefined metrics for at least one of a plurality of distributed components in a heterogeneous systemCDN, said code sections executable by a machine for causing the machine to perform the steps of:

at least one software agent retrieving and processing predefined metrics, each metric representing a characteristic of a component in a heterogeneous system, wherein each of said agents is configured to processes the received values in an entity-independent manner;

storing in a datastore, values for the predefined processed metrics received from an agent;
each of said values representing a characteristic of each component in the CDN;

identifying a previously occurring network event involving components associated with the
at least one agent;

retrieving said stored values from said datastore for the network event; and

displaying said retrieved values for selected ones of said predefined metrics for sequential playback on a graphical display, wherein said sequential playback indicates previously occurring interactions among components in the heterogeneous system.

21. (Currently Amended) The machine readable storage according to claim 20[21], wherein said storing step, comprises storing said values sequentially in time as said values are collected along with data for temporally coordinating interactions among the components.

22. (Currently Amended) The machine readable storage according to claim 20[22], wherein said retrieving step, comprises:

accessing stored values in said datastore;

determining a starting time position and an ending time position for which said stored

values are to be retrieved; and

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acquiring said sequentially stored values from said starting ~~position~~time to said ending ~~position~~time.

23. (Currently Amended) The machine readable storage according to claim 20[23], wherein said step of displaying said retrieved values, comprises:
selecting at least one of the metrics for display for selected ones of said components; and
providing a graphical display of said selected metrics, said display sequentially changing according to changes in said acquired values caused by changes in the stored dynamic data space.

24. (Currently Amended) The machine readable storage according to claim 20[24], further comprising controlling said sequentially changing graphical display by selecting a playback function from the group consisting of playing, forwarding, fast forwarding, rewinding, fast rewinding, pausing, stepping, and stopping.

25. (New) The system according to claim 10, wherein when the communication components are utilized as information sources, network events are presented in the graphical interface in real-time.